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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,765	06/28/2006	Mamoru Moriya	292234US0PCT	5795
22850	7590	08/06/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	
			NOTIFICATION DATE	DELIVERY MODE
			08/06/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/584,765	Applicant(s) MORIYA ET AL.	
	Examiner Hai Vo	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claims 6-10 are objected to because of the following informalities: when the claim is specific about the name of the resin and/or the amount associated with the resin, the phrases "major component" and "minor component" would be preferably removed from the claims to avoid confusion. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-5, 8 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is referred to the component of the body as recited in claim 2.

Claim 8 recites the limitation "wood flour" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Burger et al (US 6,863,972). Burger teaches a component comprising a synthetic wood layer secured to a foam layer by coextrusion (column 7, lines 14-16). The synthetic wood layer and foam layer contain PP, PS, PVC or ABS and wood flour in an amount of

30 to 70% by weight (column 6, lines 15; and column 8, lines 45-46). The synthetic wood layer and foam layer further comprise a thermosetting material in an amount up to 4% by weight (column 5, lines 35-40). The thermosetting material reads on Applicant's component resin while PVC or ABS reads on Applicant's weather resistant synthetic resin. Accordingly, Burger anticipates the claimed subject matter.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al (US 6,863,972) as applied to claim 1 above, and further in view of Hills (US2003/0218266). US 6,752,941 will be relied on as an equivalent form of US 2003/0218266 for convenience. Burger does not specifically teach the synthetic wood layer comprising a blend of acrylonitrile ethylene propylene styrene (AES) and PS. Hills, however, teaches a plastic article with simulated wood grain appearance comprising a core layer and a cap layer joined together (column 3, lines 55-65). The cap layer contains 5% to 50% by weight of PS or PP and 10% to 60% by weight of AES (column 2, lines 9-15, 65-67; column 3, lines 15-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the synthetic wood layer comprising a blend of PS and AES as taught

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by Hills motivated by the desire to provide a product having a controllable realistic wood grain appearance.

8. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al (US 6,863,972) in view of Hills (US2003/0218266) as applied to claim 2 above, and further in view of Maeda et al (US 2005/0154094). Burger teaches a foam layer comprising AES, ASA or ABS in an amount of 5 to 50 parts by weights based on 100 parts by weight of polypropylene. Maeda, however, teaches a wood synthetic resin article comprising a foam layer containing a polyolefin resin in combination of a small amount of AES, ASA or ABS (paragraphs 18-21 and 27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add AES, ASA or ABS into the foam core of Burger motivated by the desire to impart rigidity and secondary processing properties to the products such as nailing, sawing and screw clamping.
9. Claims 5, 10 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al (US 6,863,972) in view of Hills (US2003/0218266) as applied to claim 2 above, and further in view of JP 2003-184289. Burger does not specifically disclose the expansion ratios of the synthetic wood layer and the foam layer. JP'289 discloses a floorboard comprising a surface layer and a foam layer wherein the surface layer has an expansion ratio of 1.0 to 1.1 times and a foam layer has an expansion ratio of 1.2 to 3 times (abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the

expansion ratio as taught by JP'289 motivated by the desire to provide the component excellent in a woody touch and mechanical strength.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al (US 6,863,972) in view of Hills (US2003/0218266) and JP 2003-184289, as applied to claim 11 above, further in view of JP 2002-347152. Burger does not specifically teach the fiberglass wires embedded in the longitudinal direction of the foam layer of the component. JP'152, however, teaches a foam building material comprising the fiberglass wires embedded in the longitudinal direction of the material (abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to embed the fiberglass wires in the longitudinal direction of the foam core of the component motivated by the desire to impart mechanical strength and secondary processing properties to the products such as nailing, screw clamping.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al (US 6,863,972) in view of Hills (US2003/0218266) and JP 2003-184289, as applied to claim 11 above, further in view of Pollard (US 3,810,337). Burger does not specifically teach the aluminum wire embedded in the longitudinal direction of the body of the component. Pollard, however, teaches a foam structural material comprising the aluminum wires embedded in the longitudinal direction of the foam material (figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to embed the aluminum wires in

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the longitudinal direction of the foam core of the component motivated by the desire to adjust the stress and load bearing properties of the component.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HV
Date: July 30, 2007

/Hai Vo/
Primary Examiner, Art Unit 1771

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